U.S. Serial Number: 10/663,566
Reply to Office Action of: 10/07/05
Family Number: P1999J009-US3

REMARKS

Claims 1-10, 12-25, as amended, are submitted for examination. Reconsideration is respectfully requested.

The claims have been amended to make clear that the present invention is limited to petroleum feedstocks used in the energy industry. In addition, a heating step has been added to the claimed invention. This step is necessary to melt solids that interfere with a correct determination of acid measurements. In addition, the present invention uses all the wavelengths in step (c) that were used in the absorbance step (b). The prior art does not do so. The cited patent, Matsushita, does not do this. He uses only the wavelengths about 3300 cm^{-1}. The present invention does not use any of the wavelengths that Matsushita discusses, let alone uses to measure acid value.

Claims1-12 and 17-23 stand rejected under 35 USC 103(a) as being unpatentable over Matsushita, U.S. 5,420,041, in view of Ramamoorthy, U.S. 5,681,749. Claims 12-16, 24, and 25 have been objected to and would be allowable as rewritten in independent form.

The cited prior art does make the present invention unpatentable as discussed below.

Ramamoorthy determines the concentration of a mineral (inorganic) acid. Matsushita determines the construction of organic acid, but only using a certain narrow wavelength range. The present invention determines the concentration of organic acid in specific ranges which does not include the range disclosed in Matsushita. Most important is that Matsushita teaches away from the present invention.

Ramamoorthy determines the concentration of a mineral acid (an inorganic acid). In column 7, lines 24-30, Ramamoorthy states that he determines the concentration of a mineral acid concentration of mineral acid in a mixture of mineral acid, water and acid-soluble hydrocarbons.

A mineral acid is an organic acid. Grant & Hackh's Chemical Dictionary define a mineral acid as an inorganic acid. See Grant & Hackh's, Chemical Dictionary, Fifth edition, 1987 at page 372.

Matsushita measures the acid of a mineral oil. Matsushita's instrument measures many wavelengths, but he excludes them except around 3300 cm^{-1}. The patent explains why other wavelengths will not work. Matsushita's teaching will not work for the petroleum feed of the present invention. Mineral oil is not petroleum oil.

Applicant believes that the Examiner's assertions of the teaching of the cited references is incorrect and that the claimed invention is patentable over the cited art. Therefore, applicant requests an interview between applicant and his attorney and the Examiner and her supervisor to discuss the patentability of the present invention over the cited art. Applicant's attorney may be contacted at (908) 730-2534.

Applicants believe that the claims now present in this application to be patentable and that this application is in condition for allowance, and such favorable action is respectfully requested. If any questions or issues remain, the resolution of

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which the Examiner feels would be advanced by a conference; he is invited to contact Applicants' attorney at the telephone number noted below.

Respectfully submitted,

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☐ Pursuant to 37 CFR 1.34(a)

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